

**A TECHNIQUE FOR COMPILING COMPUTER CODE TO REDUCE ENERGY  
CONSUMPTION WHILE EXECUTING THE CODE**

**Abstract of the Disclosure**

The present invention provides a technique for reducing power consumption during execution of computer code including power-down instructions, while satisfying user-specified real-time constraints on a microprocessor. In one example embodiment, this is accomplished by identifying one or more potential locations in the computer code where the power-down instructions can be inserted. The identified potential locations are then analyzed to select the locations to insert the power-down instructions based on user-specified real-time constraints so that the inserted power-down instructions reduces power consumption without significantly increasing the execution time of the computer code.

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